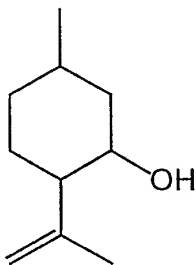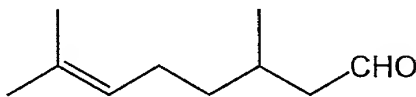**WHAT IS CLAIMED IS:**

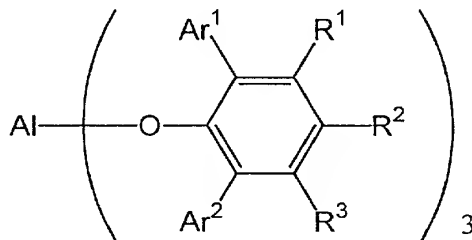1.   A process for producing isopulegol represented by the following formula (1):

(1)

which comprises selectively cyclizing citronellal represented by the following formula (2):

(2)

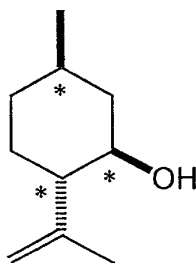in the presence of a tris(2,6-diarylphenoxy)aluminum catalyst represented by the following general formula (3):

(3)

wherein Al represents an aluminum atom, Ar^1 and Ar^2 each represent a substituted or unsubstituted aryl group or a

heteroaryl group; and R^1, R^2 and R^3 each represent a hydrogen atom, a halogen atom, an alkyl group having 1 to 8 carbon atom(s), an alkoxy group having 1 to 8 carbon atom(s), a substituted or unsubstituted aryl group, a dialkylamino group wherein each alkyl group has 1 to 4 carbon atom(s), or a nitro group.

2. A process for producing optically active isopulegol represented by the following formula (4):
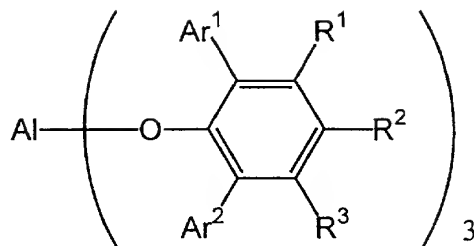

(4)

wherein * indicates an asymmetric carbon atom, which comprises selectively cyclizing optically active citronellal represented by the following formula (5):
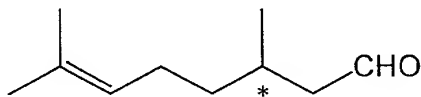

(5)

wherein * indicates an asymmetric carbon atom, in the presence of a tris(2,6-diarylphenoxy)aluminum catalyst represented by the following general formula (3):

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$$\left(Al - O - \underset{\underset{\displaystyle R^3}{\overset{\displaystyle Ar^2}{\bigcirc}}}{\overset{\overset{\displaystyle R^1}{\overset{\displaystyle Ar^1}{}}}{}} R^2 \right)_3$$

(3)

wherein Al, Ar^1, Ar^2, R^1, R^2 and R^3 are as defined above.

3. A process for producing isopulegol according to claim 1 or 2, wherein said tris(2,6-diarylphenoxy)aluminum catalyst is a reaction product obtained by reacting at least one compound selected from an alkylaluminum compound represented by the following general formula (6a):

$$(R^4)_{3-p}AlH_p \qquad (6a)$$
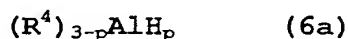
wherein Al represents an aluminum atom, R^4 represents an alkyl group having 1 to 4 carbon atom(s), and p represents an integer of 0 to 2,

and a metal aluminum hydride represented by the general formula (6b):

$$MAlH_4 \qquad (6b)$$

wherein M represents a lithium atom, a sodium atom or a potassium atom, and Al represents an aluminum atom;

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and a 2,6-diarylphenol represented by the following

general formula (7):

$$\text{HO}\underset{\overset{|}{Ar^2}}{\overset{\overset{|}{Ar^1}}{\bigcirc}}\underset{R^3}{\overset{R^1}{\underset{R^2}{}}}$$
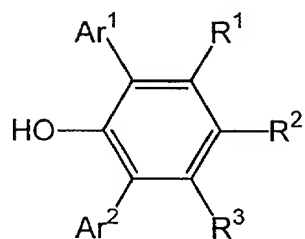
(7)

wherein Ar^1, Ar^2, R^1, R^2, and R^3 are as defined above,

in an inert solvent.

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